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14. ABSTRACT Since the start of Operation Iraqi Freedom and continuing through Operation Enduring Freedom and Operation New Dawn, U.S. forces have been plagued by a weapon that is simplistic, inexpensive, and effective known as the improvised explosive device (IED). Counter-IED (CIED) has thus been a major focus ever since. This focus has evolved so much that in 2006 the Joint IED Defeat Organization (JIEDDO) was established to address the IED issue, which has been the greatest cause of U.S. casualties since the start of the Global War on Terror. There are critics that argue that money is being thrown at the problem and the focus solely on CIED is not the answer, but rather a subset of battle. Those same critics believe that the time has come for the Marine Corps to focus on its foundation of expeditionary warfare. And their desires may come to fruition as U.S. forces have already withdrawn from Iraq, will soon be withdrawing from Afghanistan, and will shift its focus to the Pacific Theater. Despite this however, through creative alternatives and adjusting budget priorities the DoD can effectively sustain and improve its CIED capabilities which will undoubtedly be necessary for future global conflicts.				
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MASTER OF MILITARY STUDIES

TITLE:

Sustaining Eleven Years of Counter-Improvised Explosive Device
Relevancy for Tomorrow's War

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

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Executive Summary

Title: Sustaining Eleven Years of Counter-Improvised Explosive Device Relevancy for Tomorrow's War

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Thesis: The CIED lessons learned over the past twelve years must not be lost as a result of the imminent withdrawal of U.S. forces from Afghanistan or from impending budget cuts. Instead these capabilities must be sustained and improved upon for tomorrow's war.

Discussion: This paper will develop the argument that the IED is not just a threat the U.S. military faces in the Middle East, but rather a global threat and that because the enemies of tomorrow have seen the effectiveness of this weapon against U.S. forces that there is a need to sustain and improve the current CIED capabilities. Since the start of Operation Iraqi Freedom and continuing through Operation Enduring Freedom and Operation New Dawn, U.S. forces have been plagued by a weapon that is simplistic, inexpensive, and effective known as the improvised explosive device (IED). Counter-IED (CIED) has thus been a major focus throughout the past 11 years. The focus has evolved so much that in 2006 the Joint IED Defeat Organization (JIEDDO) was established to address the problem that has been the greatest cause of U.S. casualties since the start of the Global War on Terror. JIEDDO has been effective in steering individual services' supporting establishments to a joint CIED capability by way of three lines of operations (LOO): Attack the Network (AtN), Defeat the Device (DtD), and Train the Force (TtF).

The importance of these LOOs have been so significant that mandatory CIED training blocks have been established along with massive improvements to IED detection and prevention technologies. There have been circles that argue that money is being thrown at the problem and the focus solely on CIED is not the answer, but rather a subset of battle just as Chemical, Biological, Radiological, Nuclear (CBRN). Those same critics believe that the time has come for the Marine Corps to focus on its foundation of expeditionary warfare. And their desires may come to fruition as we have already withdrawn U.S. forces from Iraq and will be withdrawing U.S. forces from Afghanistan within the next two years and a shift in focus to the Pacific Theater. Additionally, the upcoming Department of Defense budget cuts and the looming sequestration are bolstering their debate. This along with the "pivot" to the Pacific makes the reduction of CIED capabilities that U.S. forces have learned over the past 11 years a possibility.

Over 11 years have passed since 2001 and still the U.S. military has been plagued by the simple, yet effective IED that has amassed the most injuries and deaths among its forces. There is no magical solution to the problem and there is no way to eliminate the problem completely. Furthermore, it is certain that these, "cost-effective, adaptive weapons and the violent extremist organizations that use them are sure to evolve over time."¹ Not only will they evolve, but they will be used across the globe against U.S. personnel and its national interests.

Conclusion: Although the imminent budget crisis will undoubtedly affect the CIED capabilities, there are ways in which to address funding by creative and realistic alternatives to current methodologies. By allowing JIEDDO, individual services, and the interagency to coordinate efforts the mistakes made at the onset of the Global War on Terrorism will not be repeated and will better prepare the warfighter for the next conflict to come.

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

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Illustrations

	Page
Figure 1. Active Duty Military Casualties.....	3
Figure 2. Department of Defense Topline Since September 11th Attacks.....	9
Figure 3. OCO Functional Category Breakout	10
Figure 4. Historical JIEDDO Budget	11
Figure 5. Counter-Improvised Explosive Device Training and Capabilities Guidance	27

Tables

	Page
Table 1. Pre-Deployment Training Program	26

Table of Contents

	Page
DISCLAIMER	i
LIST OF ILLUSTRATIONS	ii
LIST OF TABLES	ii
PREFACE	iv
INTRODUCTION	1
HISTORICAL PERSPECTIVE	2
CURRENT STATE OF CIED CAPABILITIES	5
Attack the Network	6
Defeat the Device	6
Train the Force	7
BUDGET	8
Effects on the Marine Corps	12
Capabilities-Based Assessments	14
THE GLOBAL THREAT	15
FUTURE CIED CAPABILITIES	17
JIEDDO Strategy 2012-2016	17
Marine Corps CIED Strategy	18
Recommendations for Future CIED Capabilities	19
CONCLUSION	23
APPENDIX A: PRE-DEPLOYMENT TRAINING PROGRAM	26
APPENDIX B: COUNTER-IMPROVISED EXPLOSIVE DEVICE TRAINING AND CAPABILITIES GUIDANCE	27
BIBLIOGRAPHY	30

Preface

The moment I got accepted to Command and Staff College I knew right away that I was going to write my master's thesis on counter-IED (CIED); I was just unsure of the exact aspect of CIED that I was going to write about. It was only after coming to Command and Staff College that I heard that current CIED capabilities were being threatened by defense budget cuts and sequestration. It was then that my topic was solidified. Although this topic is far from the expertise of your typical artilleryman, it was during my 21 months as the RCT-5 Regimental Fire Support Coordinator that I cut my teeth in the CIED realm. In addition to my duties as the Fire Support Coordinator, I became the RCT-5 Counter-IED Coordinator and over a year's time I became intimately familiar with a subject I had only heard of in meetings and in the media. During my deployment to Afghanistan I witnessed the many efforts from Marines on the ground that proved the efficacy of CIED and the numerous lives saved because of it. I aim to provide creative and efficient recommendations that would allow for the sustainment and improvement of the DoD's CIED capabilities despite the defense budget cuts and possible sequestration.

This paper would not have been possible had it not been for the support and encouragement from multiple individuals. I would like to thank Dr. Otis for her mentorship and guidance throughout the process which enabled me to present a product that was relevant to a current and important topic. I would like to thank Professor Micah Martin for his mentorship, advice, and non-military perspective that allowed for a stronger paper. Additionally, I would like to thank the many Marines, soldiers, and civilians that afforded me the time to interview them and provide me with the needed information to reinforce my findings. And lastly, but certainly not least, I would like to thank my wife for the constant support, encouragement, and sacrifice she provided that allowed me to conduct research and write this paper.

“In the 20th century, artillery was the greatest producer of troop casualties. The IED is the artillery of the 21st century.”

Lieutenant General Michael Barbero, Director, JIEDDO

Introduction

Over the past eleven years Improvised Explosive Devices (IEDs) have been the foremost cause of U.S. casualties in Iraq and Afghanistan. Since the Global War on Terrorism began in 2001, IEDs accounted for 3,404 killed in action (KIA) and 35,045 wounded in action (WIA).² Throughout U.S. involvement in both of these theaters of operations the requirement to defeat IEDs has been a major priority.

Individual services have and continue to develop efforts to fight IEDs from a single service perspective. However, because IEDs are a joint problem, the Department of Defense (DoD) needed, “a holistic approach to defeating IED[s] that incorporates intelligence, information, training, operations, materiel, technology, policy and resourcing solutions designed to address all of the tenets of assured mobility including prediction, detection, prevention, neutralization and mitigation.”³

Established by the DoD in 2006 to address this need, the Joint IED Defeat Organization (JIEDDO) has since led the joint Counter-IED (CIED) fight. Since its inception JIEDDO has spent more than \$20 billion to defeat IEDs not only in Iraq and Afghanistan, but around the globe.⁴ JIEDDO established three lines of operations in order to improve threat-intelligence gathering, acquire counter-IED technologies and develop counter-IED training for U.S. troops on the battlefield. Although disrupting the IED network, limiting IED causalities, and conducting CIED training has been an expensive endeavor, the efforts have led to declining IED casualty rates in Afghanistan.⁵

Coupled with the 2011 withdrawal of U.S. forces from Iraq and the planned 2014 withdrawal of U.S. forces from Afghanistan, the ability to sustain and improve U.S. CIED efforts that have been learned over the past eleven years will prove to be a challenge as a result of the imminent defense budget cuts and the ominous sequestration. With the increased focus on transitioning to the Pacific theater and returning to “brilliance in the basics”, some circles believe that CIED should no longer take precedence. However, the threat of IEDs is not exclusive to Iraq or Afghanistan; it is a threat that has strategic implications around the globe¹, such as those in the Pacific theater where there is an average of 106 IED events per month.⁶ The resources and emphasis on CIED since 2001 must not be allowed to deteriorate as a result of the approaching withdrawal of U.S. forces from Afghanistan or from portentous budget cuts, but rather sustained and strengthened in order to reduce the effectiveness of IEDs to the point they no longer remain a weapon of strategic impact on the global environment.

This paper validates the argument that the IED is not just a Middle East threat, but rather a global threat and that because the enemies of tomorrow have seen the effectiveness of this weapon against U.S. forces there is a need to sustain and improve the current CIED capabilities. To augment the research, the paper looked at the historical and current IED and non-IED casualty data along with the ways in which the Marine Corps is contributing to the joint CIED endeavor. Finally, this paper analyzed the defense budget constraints and future impact it will have on U.S. CIED efforts while offering recommendations on how to prepare the Marine Corps for future global IED threats despite these cuts.²

Historical Perspective

¹ See pages 15 & 16 for global statistics.

² As a result of current CIED sensitivity and classification, certain details are either omitted or described in general terms.

Since the Global War on Terrorism began in 2001, IEDs have plagued U.S. forces and have caused the majority of U.S. military injuries and deaths since 2001 (see Figure 1). When U.S. forces began preparing for OIF, there was little to no focus on IEDs. Instead the focus was on core competencies for traditional warfare. The logic was that the enemy at that time was the massive Iraqi Army and Republican Guard not an unconventional insurgent force using guerilla tactics. However, upon the completion of hostilities with the Iraqi forces, an insurgency was born and IEDs quickly became the insurgents' favorite and most effective weapon. As combat operations against the insurgency extended into the summer and fall of 2003, the casualty rate as

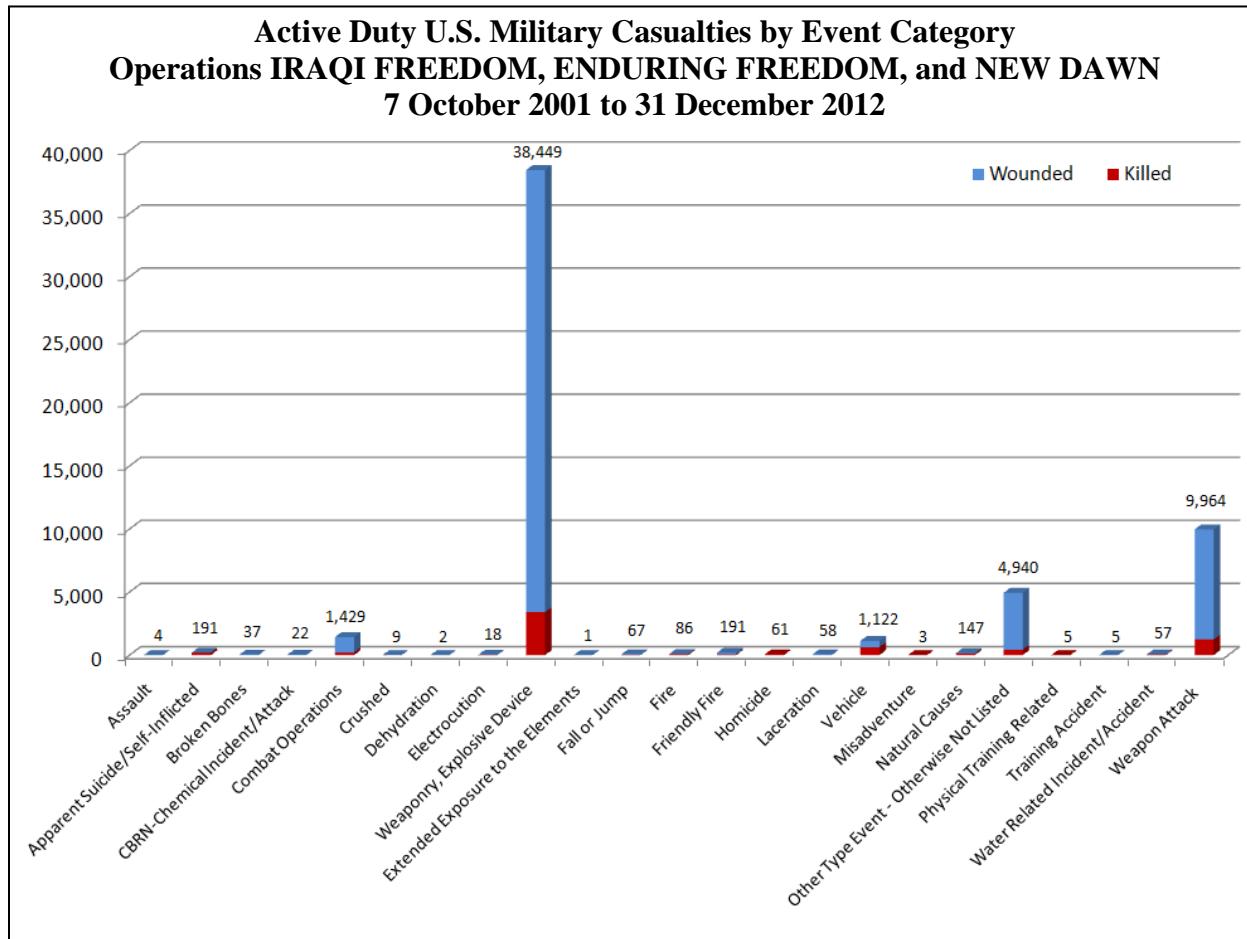


Figure 1. Active Duty Military Casualties (Graph created by author)⁷

a result of IEDs began to increase. The following summer, General John Abizaid, Commander of U.S. Central Command, sent a memo to the secretary of defense calling for a “Manhattan Project-like” effort to counter the threat.

The Army answered the call by forming a 12-person, Army-led Joint Integrated Process Team (IPT) to harness the expertise and lessons learned, not solely of the U.S. Army, but of all military services.⁸ They were given \$100 million to counter the IED threat. Over the course of the next year, “...the team scored several victories against the IED threat—namely the use of vehicle and personal armor and explosive ordnance disposal robots.”⁹ Throughout this period, the other services established similar teams to engineer IED defeat mechanisms specific to their service platforms. Subsequently, the efforts of the individual services, although not intentional, were duplicated resulting in wasted time and resources. This led individual services to successfully field service specific technologies that lacked service-to-service interoperability and often interfered with existing military systems. The inefficiencies resulted in a flashback to the Cold War in which, “...the competition for resources led the Services to develop their own initiatives, which precluded them from jointly acquiring IED defeat solutions.”¹⁰

To alleviate this, in June 2005, acting Deputy Secretary of Defense Gordon England, issued DoD Directive 2000.19D which established the Joint IED Defeat Task Force (JIEDD TF), focusing the entire Defense Department’s IED defeat efforts.¹¹ They were given a budget of \$1.3 billion, but as the deaths from IEDs steadily increased so too did the required effort. Six months after Secretary England issued the JIEDD TF directive he created a memorandum elevating it to the Joint IED Defeat Organization and codified the organization into DoD policy with the issuance of DoD Directive 2000.19E the following month, on 14 February 2006.¹²

Since its inception, JIEDDO has been effective in steering individual services' supporting establishments to a joint CIED capability by way of three lines of operations (LOO): Attack the Network (AtN), Defeat the Device (DtD), and Train the Force (TtF). The importance of these LOOs have been so significant that mandatory CIED training blocks have been established along with massive improvements to IED detection and prevention technologies.

Current State of CIED Capabilities

The mission of JIEDDO is to, "Lead DoD actions to rapidly provide C-IED capabilities and solutions in support of Combatant Commanders, the Services, and as authorized, [the Central Intelligence Agency, the National Security Agency, the Federal Bureau of Investigation, Department of Homeland Security, Drug Enforcement Agency, and the Bureau of Alcohol, Tobacco, and Firearms] to enable the defeat of the IED as a weapon of strategic influence."¹³ According to JIEDDO, "[T]he 'effective attack rate' is down by more than 30 percent [since 2010]. Meanwhile, the rate of IEDs that are found and cleared without injury is up: the found-and-cleared rate for IEDs designed for mounted patrols are up from 54 percent [in 2011] to 65 percent [in 2012]; the rate for IEDs designed to kill or maim service members on 'dismounted' patrols are up from 76 percent [in 2011] to 78 percent [in 2012]."¹⁴ The Marine Corps is following JIEDDO's lead and has established agencies with nested CIED missions.

The Marine Corps Warfighting Laboratory (MCWL) Counter-Improvised Explosive Device Division (C-IED Div) is the agency that leads, advocates, and coordinates all counter-IED (C-IED) efforts in the Marine Corps along all three JIEDDO LOO's. In order for MCWL to accomplish this, they get assistance from various other supporting establishments throughout the Marine Corps. One substantial contributor is the Marine Corps Training and Education

Command (TECOM). The efforts from TECOM's CIED section ensures the development, coordination, resourcing, and evaluation of CIED training and education concepts, policies, plans, and programs ensure Marines are prepared to meet the challenges of present and future operational environments.¹⁵

Attack the Network (AtN)

This is by far the most important of the three LOOs and the one in which allows the U.S. to be proactive and aggressive towards those financing, manufacturing, and instructors of IEDs, to include their infrastructure. Essential to AtN is the need to focus on, “information fusion, extensive [joint, interagency, and coalition] collaboration, and expanding analytical support to combatant commands.”¹⁶ There are various supporting entities within JIEDDO, such as the CIED Operations/Intelligence Integration Center (COIC) and Combined Explosive Exploitation Cell (CEXC) that assist the DoD. These are specialized personnel that interface the combatant commands and the units they support. The success of the AtN LOO is predicated on intelligence gathering and as such the supported units are relegated to using their intelligence personnel and resources to assist. This practice has put a strain on intelligence resources of the supported unit who are already task saturated with other non-CIED missions that are required for their commander.

Defeat the Device (DtD)

At first, there was an attempt to eliminate the IED at the source, but this proved unsuccessful because no matter what was attempted IEDs were still showing up on the battlefield. The only option that remained was to introduce technologies that could locate the IEDs and their components. The efforts put forth in this LOO have undoubtedly saved lives, but at a cost that some in the Pentagon argue is too expensive and that, “the response to the IED has

been primarily to increase force protection by emphasizing technical solutions which have proven insufficient.”¹⁷ They contend that JIEDDO is throwing money at the problem instead of trying to solve the problem; however, according to a statement made by JIEDDO’s Director, Lieutenant General Barbero, to the House of Representatives Committee, “[O]ur ability to find and neutralize [IEDs] before detonation has improved steadily — helping to reduce U.S. casualties by more than 40 percent [in September of 2012].”¹⁸

Train the Force (TtF)

Vital to enabling effectiveness to both the AtN and DtD lines of operations, U.S. forces are trained to combat IED employment, “by attacking the network, integrating equipment and systems for the individual and battle staffs, and enhancing their knowledge and proficiency of C-IED TTPs.”¹⁹ There are multitudes of training venues that provide the most relevant CIED methodology at the individual and unit levels. These venues can be found at the joint, service, and interagency levels and are often redundant or, at times, counter-productive. With no DoD or service standardization requirement in existence throughout the scores of CIED technologies and methodologies the disparity between, “numerous C-IED training resources available and sourced by USMC/Joint Forces in pre-deployment training and a lack of service pre-deployment C-IED training policy/guidance have led to gaps in training and capabilities readiness.”²⁰

The Commandant of the Marine Corps addressed this by formally establishing a service-level C-IED training policy for Marines and Marine units preparing to deploy to the U.S. Central Command (CENTCOM) area of responsibility (AOR). Marine Administrative (MARADMIN) message 740/07 dated December 19, 2007 formally introduced the pre-deployment training program (PTP) Toolkit.²¹ The PTP Toolkit outlined the required tasks broken into specific “block” training by individual and unit echelon (See Appendix A).

Recognizing this same capability gap in training, JIEDDO has been working to incorporate the latest CIED tools and TTPs across the services to prepare soldiers, sailors, Marines and airmen for the IED threat in Afghanistan.²² Subsequently, in 2008, CENTCOM published guidance to all forces outlining, “C-IED training and capabilities requirements....for all forces tasked to operate in an IED environment...in support of Operations IRAQI and ENDURING FREEDOM.”²³ The message (see Appendix B) clarified existing requirements for commanders to follow and encouraged them to leverage and take advantage of JIEDDO resources.

Although this covers the CENTCOM AOR, there are neither CIED training standards nor requirements established for those individuals or units deploying to other Combatant Command AORs. To establish a standard or requirement will prove difficult, however, as a result of current budget cuts and looming sequestration.

Budget

The DoD is operating at 2012 budget levels since lawmakers have not passed a 2013 defense appropriations bill.²⁴ The Pentagon is already cutting its budget by \$487 billion over the next decade as part of the 2011 Budget Control Act’s requirement to reduce future expenditures.²⁵ These budget cuts were driven by the DoD’s current strategic guidance as it was approaching the “end of a decade of war, a changing technological and geopolitical landscape, and the national security imperative of deficit reduction.”²⁶ A last-minute “fiscal cliff” deal at the beginning of 2013 bought an additional two months for Congress and the White House to come up with a plan to lower the U.S. deficit or approve sequestration. However, the DoD is not optimistic and is bracing itself for sequestration’s trillion dollar defense cuts over the next decade.

With the end of every major conflict the U.S. has experienced comes an eventual and significant budget draw down. Following the Vietnam War and the Gulf War the U.S. military saw tremendous budget cuts; however the difference between these wars and Operation Enduring Freedom (OEF) is that the U.S. is still, “countering violent extremism in other areas, and confronting a variety of emerging security challenges.”²⁷ And although the new DoD budget level will increase from \$525 billion for FY13 to \$567 billion for FY17, the total defense spending, including baseline and Overseas Contingency Operation (OCO) funding, will drop by about 22% from its peak in 2010 after inflation.²⁸

Congress maintains the daily undertakings of the DoD by allocating baseline funding. For combat and overseas operations, the majority of funding that Congress allocates is known as Overseas Contingency Operation funding, also referred to as “supplemental” funding. As outlined in Figure 2 the baseline funding has increased, and will continue to increase as a result of inflation, whereas the OCO has seen a drastic decline following the conclusion of Operation Iraqi Freedom

Department of Defense Budget FY 2001-2013													
\$ in Billions	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13*
Base	296.9	328.1	364.9	376.5	400.0	410.5	431.4	479.0	513.2	527.9	528.2	530.6	525.4
OCO/Supplements	13.4	16.8	72.5	90.7	75.6	115.7	166.2	186.9	145.6	162.3	158.8	115.1	88.5
Other**	5.8	--	--	0.3	3.2	8.1	3.1	--	7.4	0.7	--	--	--
Total	316.2	345.0	437.4	467.6	478.9	534.4	600.9	665.9	666.3	690.9	687.0	645.7	613.9

Numbers may not add due to rounding

Data is discretionary budget authority. FY 2001 through FY 2011 are actual levels. The FY 2012 is the appropriated or enacted amount.

** Budget Request.*
*** Non-war supplemental appropriations, e.g. funding needed in base budget for fuel costs, hurricane relief, and other disaster relief.*

Figure 2. Department of Defense Topline Since September 11th Attacks ²⁹

(OIF) and the steady withdrawal from OEF. The OCO is JIEDDO's primary funding source and with its reduction comes a dramatic drop in JIEDDO capabilities. Joint IED Defeat Organization's annual funding has dropped from a high of \$4.5 billion in 2007 to \$2.4 billion this year.³⁰ Furthermore, OCO affects CIED funding for all the individual services limiting their abilities to sustain their current and future CIED capabilities thereby degrading the protection of U.S. forces in Afghanistan and any future engagements they encounter.

Funding by functional category for FY 2013 OCO is presented in Figure 3. Of the \$88.5 billion requested for FY 2013, the requested funding for IED Defeat was \$1.7 billion a drop from

Overseas Contingency Operations Funding by Category for FY 2012 and 2013

	FY 2012 Enacted*	FY2013 Request
Operations	60.2	48.2
Force Protection	6.5	5.1
Improvised Explosive Devices (IED) Defeat	2.4	1.7
Military Intelligence Program (MIP) (<i>Includes ISR</i>)	5.8	4.5
Afghanistan Security Forces Fund (ASFF)	11.2	5.7
Afghanistan Infrastructure Fund (AIF)*	0.4	0.4
Commander's Emergency Response Program (CERP)*	0.4	0.4
Support for Coalition Forces	2.1	2.2
Equipment Reset	13.0	9.3
Military Construction	0.3	--
Temporary End Strength	2.2	6.1
Non-DoD Classified	5.4	4.9
Non-war/Other*	5.8	--
Total	115.7	88.5
Rescissions**	-0.6	--
Total including Rescissions	115.1	88.5

* Reflects base budget amounts transferred by the Congress to OCO, and congressional non-war adds (e.g., \$1B for domestic National Guard and Reserve Equipment).

**Includes rescissions enacted in FY 2012 for FY 2010 OCO appropriations.

Figure 3. OCO Functional Category Breakout³¹
(*Dollars in Billions*)

\$2.4 billion the previous year. This is a drastic decrease for all IED Defeat OCO funding, which is defined below:

“Improvised Explosive Device (IED) Defeat: Funding to develop, procure, and field measures to defeat IEDs threatening U.S. and coalition forces, closing the gap between the enemy’s innovation cycles by developing and delivering Counter-IED as quickly as possible for use by the Joint and Coalition Forces.”³²

Since its inception (see Figure 4), JIEDDO has averaged \$3.36 billion in funding per year. The majority of which is OCO funding spent across the three LOOs. These funds also contribute to the majority of what the individual services receive in their CIED fight across all three LOOs. Although the FY 2014 JIEDDO budget has yet to be solidified, the imminent budget cuts will certainly be the last year JIEDDO will possibly see a \$3.36 billion average. As

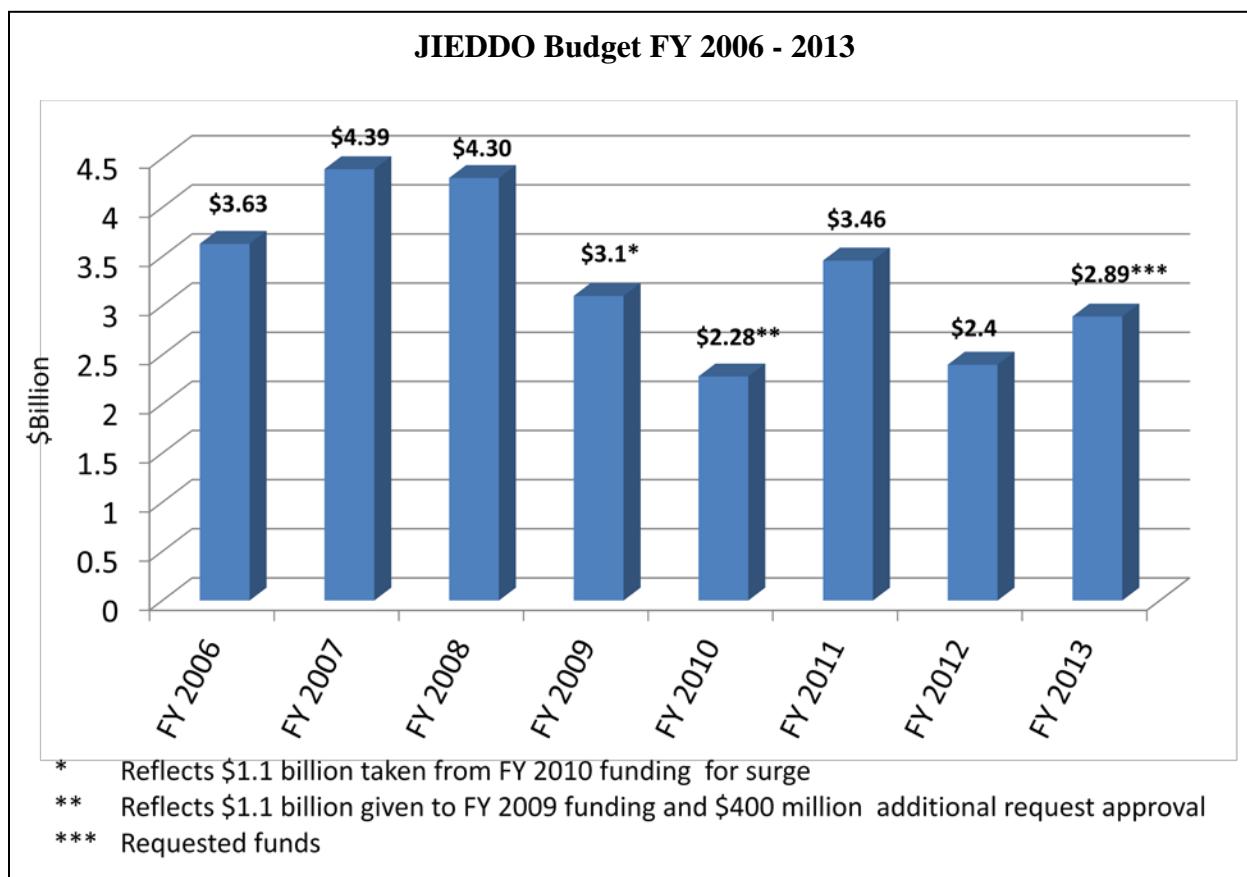


Figure 4. Historical JIEDDO Budget (graph created by author)

JIEDDO inevitably reduces its capabilities as a result of decreased OCO budgeting, the individual services, likewise, will see a drastic decline in their CIED capabilities.

This is already becoming a factor at MCWL, Training and Education Command (TECOM), and various other Marine Corps supporting establishments that contribute to the Marine Corps' CIED efforts. The abrupt cuts in defense spending and looming sequestration have made ascertaining future CIED capabilities a top priority. These supporting establishments are coming together as a CIED Operational Advisory Group (OAG), with MCWL's CIED Division serving as the Executive Agent, to decide what capabilities will be enduring requirements for future funding.

Effects on the Marine Corps CIED

Operations and maintenance (O&M) funding, procurement funding, and research and development (R&D) funding that is allocated for the Marine Corps' CIED capabilities will dramatically be reduced resulting in a creative new approaches to sustaining and improving its CIED capabilities. Post-OEF will have MCWL looking at CIED capabilities that will prepare for only Marine Expeditionary Units (MEUs) to have a global CIED response. The issue the Marine Corps is confronting is defining the CIED capabilities MEUs will require. As it stands, MCWL will be able to leverage JIEDDO funding for at least two more years.³³ Beyond that, the majority of funding will come from the Marine Corps' budget. The majority of CIED assets in the Marine Corps was fielded by a Universal Urgent Needs Statement (UUNS) and as such is not considered a permanent program of record. In short, UUNS provides the warfighter with the equipment required to fill the needs at that time. It is done expeditiously, but at the sacrifice of an enduring sustainment or maintenance plan – as a program of record would require. The

reduction of funding will now bring about a massive amount of broken or obsolete CIED equipment with no immediate plans for repair or replacement on the horizon.

In 2011, TECOM received \$35 million in CIED funding from JIEDDO, but come post-OEF that number is scheduled to decline dramatically.³⁴ Currently FY 13 budget is \$23 million, of which is \$8.4 million in baseline funds and the remaining being OCO funds. Although OCO and baseline funding is unknown for FY 14 it is expected to bring in \$17.4 billion. The outlook for FY15 post-OEF promises to be even more severe with a projected baseline budget of just \$5.2 million.³⁵

These reductions are forcing TECOM to drastically adjust CIED training throughout the Marine Corps. Funding for post-OEF CIED training will require TECOM to focus solely on AtN training. This training will consist of core training at military occupational specialty (MOS) producing schools only. TECOM will no longer fund core-plus training such as the PTP outlined in Appendix A. The Marine Corps will look to MOS schools such as intelligence, engineer, and communications to see if CIED curriculum can be taught in other venues.³⁶ Additionally, the Marine Corps will rely on the engineer community to give formal instruction on CIED equipment when it is fielded to the MEUs.

As mentioned earlier, the Marine Corps needs to determine the exact CIED requirements that need to be fulfilled across all levels. There is currently nothing published that outlines required core-training for CIED and there are no set CIED training and readiness (T&R) standards within the Marine Corps. Both JIEDDO and the Marine Corps are aware of these shortfalls and will be meeting later this year to discuss these issues via service-level and joint-level capabilities-based assessments (CBA).

Capabilities-Based Assessments

The CJCSI 3170.01F, *Joint Capabilities Integration and Development System* (JCIDS), states that the CBA is the analysis process that uses three phases: the functional area analysis (FAA), in this case synthesizing any existing guidance specific to enduring CIED capabilities; the functional needs analysis (FNA), which assesses the current issues facing the sustainment and improvement of CIED capabilities; and the functional solutions analysis (FSA), which takes the assessment and generates recommendations for required enduring CIED capabilities.³⁷

The CBA allows the Marine Corps to address the budget issue with an expected outcome of what the Marine Corps will list as CIED requirements for service-level equipment and training. Based on the needs of the warfighters since 2001, equipment and training has been funded, “on the fly” using OCO funding. As outlined in the CIED CBA Charter, “Results of the CIED CBA will support Joint Capabilities Integration and Development System (JCIDS) documentation for material and non-material CIED capabilities through 2020 across the USMC. Results will also support the CIED Strategy for developing USMC enduring CIED capabilities.”³⁸

The Marine Corps is not venturing alone in this effort; the other services are conducting similar assessments and JIEDDO will also be conducting its own CBA utilizing the input that results from the individual services’ assessments. These assessments, to include the Marine Corps’ CBA, are being scheduled for later this year and will not be completed prior to submission of this paper, but clearly the outcomes will address the post-OEF funding dilemma that will determine what the Marine Corps and the joint CIED capability requirements will be for the future.

As the Marine Corps and the joint community wrestle with enduring CIED capabilities

post-OEF, Defense officials are reevaluating the need to maintain JIEDDO. There are some inside the Pentagon and throughout the individual services who question whether or not JIEDDO is needed post-OEF and whether the individual services could better address the CIED threat independently.³⁹ As outlined previously, JIEDDO received \$2.4 billion in 2012 and requested \$1.7 billion for 2013 an argument persists that the money could be spent better elsewhere. Furthermore, critics contend that money is being thrown at the problem as a bandage instead of using it to solve the problem. There are those that contend the time has come for the Marine Corps to focus on its foundation of expeditionary warfare, especially with the transition to the Pacific theater.

Deputy Defense Secretary Ash Carter has started a survey of the agencies that have been established since 2001, in response to the wars in Iraq and Afghanistan, in order to assess which agencies remain and which ones will dissolve post-OEF.⁴⁰ Although JIEDDO is “safe” for the next two years and will enjoy the support of the Pentagon, the argument for JIEDDO to remain funded rests on persuading the importance of the IED threat in the global environment to the DoD.

The Global Threat

Although IEDs are tactical weapons, their use around the globe has transformed them into a weapon of strategic impact. Terrorists, insurgent groups, and regional and transnational threats that finance, build and employ IEDs assume their efforts will be sensationalized by the media and capture worldwide attention.⁴¹ To this extent, IEDs have been employed with devastating effects with over 500 IED attacks globally occurring outside of Iraq and Afghanistan on a monthly basis.⁴² Since 2011 in the United States alone, there have been 490 IED events, producing 28 casualties.⁴³ During that same timeframe, there have been over, “10,000 global

IED events that occurred in 112 countries [excluding Iraq and Afghanistan], carried out by more than 40 regional and transnational threat networks.”⁴⁴ These IED incidents produced more than 12,000 casualties, signifying the global impact IEDs present to the United States and its national interests.⁴⁵

Global areas of instability will remain high IED threat environments throughout the foreseeable future. It is likely that these will be the environments in which U.S. forces will conduct counter-terrorism, counter-insurgency (COIN), stability, and irregular warfare operations as primary future missions.⁴⁶ Furthermore, it is U.S. public policy to build coalitions; future operations require U.S. forces to contribute to multinational solutions in concert with allies and partners.

The IED will continue to be a threat as a result of global proliferation, low-cost, availability, simplicity, and observed effectiveness. Moreover, the IED is growing in sophistication and frequency as more terrorists, insurgents, and regional and transnational threats share information and realize the potential psychological, social, and political impact this weapon wields will ensure that U.S. forces will continue to be threatened by IEDs throughout the world. The ease of access to the internet, accesses to advancements in technology, and commercial-off-the-shelf (COTS) components required to make IEDs are ubiquitous, easy to attain, and largely legal to acquire. There is no other, “widely available terror weapon that is simpler, more effective, nor has more potential for mass media attention and strategic influence.”⁴⁷ Terrorists and transnational threats will, “adapt the most recent and successful TTPs gained from experiences in Iraq, Afghanistan, and elsewhere, and use them for political, ideological, or criminal purposes worldwide.”⁴⁸

Future CIED Capabilities

In order to disrupt the networks employing IEDs, and to defeat the IED itself, a holistic, decisive, whole-of-government approach that is comprehensive and seamless across all levels of the U.S. government is required. Such an approach must integrate efforts and leverage the combined authorities and capabilities of all joint and interagency partners. The IED threat and the networks that employ them are persistent and the compelling threat requires constant vigilance and enduring counter-IED capabilities.⁴⁹ While it is virtuously impossible to stop every single IED event, a comprehensive and focused policy will significantly disrupt the networks effective use of IEDs in future operations and conflicts.

JIEDDO CIED Strategy 2012-2016

The strategic vision of JIEDDO's CIED Strategic Plan 2012-2016 is to, "Reduce the effectiveness and lethality of IEDs to allow freedom of maneuver for joint forces, federal agencies, and partner nations in current and future operating environments." Future operating environments that are most likely to employ IEDs are those that suffer from, "weak governance and the absence of rule of law, corruption, mass migration, poverty, illiteracy, high unemployment, large populations of disaffected youth, and [/or] competition for water, food, and natural resources."⁵⁰ These areas are more susceptible to uniting and motivating a disaffected population which can spark the emergence of insurgencies and violent extremism. These factors, fueled by opportunistic leadership can lead to the emergence of insurgencies.

In order for the DoD to maintain its CIED capabilities and counter the global IED threat with post-OEF funding, JIEDDO must find efficient and creative solutions to counter the IED threat. Failing to achieve this will mean that the DoD's CIED capabilities will atrophy.

Currently, JIEDDO is chartered by DoD to rapidly acquire C-IED capabilities to deliver solutions to warfighters within six to twenty-four months while transitioning or transferring them to, “the Services, COCOMs [combatant command], or government agencies for lifecycle management and sustainment.”⁵¹ These timely transitions and transfers of solutions and initiatives allow JIEDDO to apply limited resources to the most urgent emerging C-IED requirements. By providing a unity of effort, C-IED technologies are sustained, and will continue to be available to assist the warfighters.

Marine Corps CIED Strategy

While the Marine Corps’ CIED strategy is nested within JIEDDO’s, future budget cuts will drastically reduce their capability to function at the same current capacity. Rather than focusing on all three LOOs equally, there will be an emphasis on AtN. The Marine Corps Vision and Strategy 2025 states that “state-on-state warfare” as being the most dangerous future threat to the U.S. and that the Marine Corps must be “on station” to those areas of instability deemed to be crisis prone.⁵²

The MCWL CIED Division will focus on reducing the effective use of IEDs to the point they no longer remain a global weapon of strategic impact. By working aggressively in concert with JIEDDO to find, develop, test, and rapidly deliver emerging CIED capabilities to Marine Corps forces for current and future operations.

The Marine Corps is developing its CIED doctrine by evaluating, “emerging capabilities, training, and technologies and develops transition strategies that support the needs of the Marine Corps.”⁵³ By gathering lessons learned since 2001 it will ensure the required principles and policies will be addressed that outline the CIED standards and requirements within the Marine Corps. Additionally, the doctrine will execute guidance that will, “synchronize and integrate

CIED capabilities for operating forces forward and for the express purpose of coordinating, de-conflicting and collaborating, through an expansive set of forums, information sharing networks and outreach efforts, with the [joint community], the intelligence community, interagency organizations, coalition partners, industry and a broad series of public and private partners to find solutions to IED threats.”⁵⁴

Recommendations for Future CIED Capabilities

The following recommendations will allow alternative means for the DoD to address the means in which to sustain and improve its CIED capabilities in spite of budget cuts and sequestration. They may come at the expense, or rather the compromise, of other programs and initiatives; yet the alternative of not sustaining and improving U.S. CIED efforts will be detrimental to the security of national interests and, more importantly, the security of U.S. forces around the globe in current and future operations. Since 2001, the individual services have had the luxury of funding all three LOOs by way of OCO and JIEDDO funding. By the end of 2014, this funding will vanish with little, if any, plans to replace it. Despite the annual increase in baseline funding, there will be a tremendous void in future CIED capabilities across the board. The recommendations proposed will enable creative and flexible solutions that will enable the U.S. to maintain and improve upon the CIED capabilities that have been learned since 2001.

The services and the joint community *writ large* need to think of creative ways in which to fund the current and future CIED capabilities. In order to do this JIEDDO must remain the joint center of excellence (COE) for all CIED-related issues with backing from across the services. The redundancy of CIED efforts, although well-intended, is one of the easiest ways of reducing the budget. By establishing and recognizing a single CIED COE throughout the joint and interagency communities, the efforts of each service will be known and shared throughout

the joint and interagency communities and JIEDDO could effectively steer them towards a unified and holistic effort.

Since the IED problem is not a service-specific problem, but rather a joint problem, it is ideal and efficient to have CIED training venues or schools that are overseen by a joint entity such as JIEDDO. This concept is not new; the artillery community does this already at Fort Sill. As the Fires Center of Excellence, Fort Sill is the hub of all ground and air defense artillery for the Marine Corps and Army and it has allowed the services to leverage off of each other. Fort Sill also serves as the joint MOS producing school for the Marine Corps and Army. It is not just the artillery that does this; it is the motor-transport community share the same school in Fort Leonard Wood, Missouri.

Traditionally throughout OIF and OEF there has not been any CIED specific individuals conducting CIED operations; it has been the infantryman, the artilleryman, the logistician, and any other warfighter that is “outside the wire” conducting foot or ground mobile operations. With the current and anticipated budgetary constraints this will likely be the scenario in the next operations or conflicts to come. Although, sustaining the training requirements for every single warfighter during peacetime would be a budgetary challenge there are ways to achieve this objective without sacrificing current CIED capabilities. A recommendation would be for the DoD to treat CIED as it treats Chemical, Biological, Radiological, and Nuclear (CBRN); by creating a separate MOS or making it an additional billet MOS.

By training key individuals to learn CIED and maintain a proficiency to become subject matter experts (SME), it allows the joint community to leverage these individuals for future operations or conflicts as the need arises. Throughout OIF and OEF, all the services had CBRN personnel and equipment ready should the need arise. Additionally, these CBRN personnel

fulfilled individual and unit CBRN mandated annual as well as pre-deployment training requirements. This same concept could be provided for CIED. It will create a professionalized set of skilled individuals while simultaneously sustaining the proficiency required to combat future IED threats. Furthermore, these SMEs can be utilized for training the trainer (TTT) so that as units deploy they will have their own CIED experts that can sustain the unit's CIED readiness throughout the deployment. Marines with the MOS of 0351 assaultman within an infantry battalion are ideal candidates for the TTT program as they are resident in breeching and explosives tactics. No matter who gets trained, this offers a tailorabile and affordable alternative to maintaining C-IED proficiency for every individual in the armed forces.

To reduce the cost even further, responsibilities could be parceled out to the individual services. As mentioned earlier with CIED training venues or schools, the individual services could provide focused CIED efforts; for example, the Marine Corps is primarily a dismounted light infantry force whose focus can be on dismounted CIED capabilities. The Army has a much larger mobile force and therefore mobile CIED capabilities can be their focus. The Air Force the primary focus would be air-delivered CIED capabilities that can do such things as jamming, pre-detonation, identification and likewise for the Navy with regards to maritime CIED capabilities. Interagencies can focus on AtN capabilities and work hand-in-hand with the individual services intelligence activities that are responsible for this LOO. This would allow the individual services and agencies to be the proponents and share their knowledge and training venues across the joint and interagency communities utilizing a holistic approach. Once agreed upon by JIEDDO, the individual services, and the interagency on how to divide responsibilities, JIEDDO would be the central organization that coordinates and standardizes these venues.

An alternative to creating a separate MOS would be to make CIED an additional billet MOS. Similar to how the artillery community addressed the funding and manpower issue when High Mobility Artillery Rocket System (HIMARS) and the Expeditionary Fire Support System (EFSS) were first introduced and subsequently fielded. Incorporating, maintaining, and training these two additional systems as well as the fairly recent arrival of the M777 howitzer became a challenge as a result of the table of organization remaining the same. The artillery community was constrained to its table of organization due to manpower and budgetary considerations and therefore found a creative solution by creating an additional billet MOS of 0814 for the traditional 0811 cannoneers that were assigned to a HIMARS battery and on-the-job training for those artillery batteries that deploy on a MEU with EFSS. This same approach can also be made for CIED using the engineering community as its base. This would allow for subject matter experts in CIED without creating the budget overhead of additional personnel. It can be taken a step further by allocating additional billet MOSs to those in the intelligence community that have completed requisite training conducted by the interagency or JIEDDO. Within each of the individual services, funding would be creatively spent on allocating capabilities that are tailored more to the LOOs vice a “fit for all” approach.

Once JIEDDO and the individual services conclude their assessments on enduring CIED requirements it will give a better appraisal of how to divide responsibilities and capabilities. It is imperative for these agents to address the individual COCOMs requirements because the critical requirements that were addressed over the past 11 years for CENTCOM may be drastically different from those in Pacific Command (PACOM) and others. Gaining concession from each COCOM will reduce costs and the redundancy in efforts by addressing the differences and similarities proactively vice reactively.

There are still some that maintain that the services can conduct all of this without JIEDDO; that JIEDDO has grown from a small 12-person Army task force into an enormous organization that has become yet another bureaucratic entity within the DoD. Furthermore, “[t]his growth produced an organizational structure that clearly outgrew the original intent of the small Army task force.”⁵⁵ This can be addressed by restructuring and reducing JIEDDO to only maintain positions that are critical to sustain capabilities for future operations or conflicts. Considering the U.S. withdrawal from Afghanistan, downsizing will be easier to justify by eliminating programs within the organization that were specific to that theater. When asked of General Barbero of what is to become of JIEDDO post-OEF at a recent event hosted by the Atlantic Council³, he responded, “That’s not the right question. The question is … will there be an enduring threat in the future.”⁵⁶ The answer to that “right question” is: yes, the IEDs are here to stay.

Conclusion

With the U.S. withdrawal from Afghanistan at the end of 2014 and the shift to the Pacific theater, the U.S. must remain focused on the ability to counter IEDs. Even after exiting Afghanistan, General Barbero states U.S. forces and citizens, “will remain the target of insurgent IED attacks and the IED will remain the weapon of choice.”⁵⁷ Learning from the withdrawal from Iraq, the reduction of U.S. forces from Afghanistan must not equal a reduction in critical CIED capabilities. With the data presented, the assessment is likely that future conflicts the Marine Corps will encounter will undoubtedly involve the employment of IEDs. On the merits of its success throughout OIF and OEF alone, the IED has proven an effective means in which to impose serious casualties while remaining inexpensive and technologically simple. The

³ Atlantic Council is a non partisan institution in Washington D.C. that is devoted to promoting transatlantic cooperation and international security.

combination of those two reasons with the emphasis of a continued global threat makes it apparent that CIED lessons learned from OIF and OEF become critical to sustain and improve.

Since 2006, JIEDDO has been leading the fight against IEDs and has saved numerous lives in the process. With the defense budget cuts and looming sequestration over the horizon, the knowledge and capabilities learned over these past eleven years are being threatened. The recommendations put forth in this paper offer creative and realistic alternatives that would streamline and sustain the current CIED capabilities. By maintaining the accustomed CIED budget throughout the foreseeable future or by adjusting current CIED methodologies in concert with a reduced budget, the current CIED capabilities will have the capacity to improve and evolve alongside the threat's capabilities.

It can still be argued that this is nothing more than devoting money towards an irresolvable and soon-to-be irrelevant issue. In an article that criticized the money spent by JIEDDO to defeat the IED, Dan Goure⁴ said, “In a rush to solve the problem, we just threw money and technology at the problem like multiple massive bowls of spaghetti, looking to see what stuck.” To some extent this is a true statement, but the true context must be stated to understand exactly why “we just threw money and technology at the problem”. The U.S. was not prepared for the massive use of IEDs until it was too late. Secondly, there was a massive public and political outcry that the DoD was not doing enough to protect our warfighter. These two factors created an instant reaction that the DoD made a priority to address in any way, shape, or form, no matter the cost because military lives were at stake. The DoD has learned the hard, and costly, lesson on protecting the warfighters from the IED and that it is a continuous global fight that is here to stay. The difference between Iraq, Afghanistan, and future conflicts rests

⁴ Dan Goure is a former defense official who is now vice-president at the Lexington Institute, a Washington, D.C.-area think tank.

with the DoD's decision on CIED. Now is the time to find innovative and integrative methodology. Now is the time to sustain and improve CIED capabilities in these economically difficult times. And now is the time to ensure that the mistake of being unprepared does not happen again. The foundation has been created with the precious blood and treasure of this country and whether it was all for naught will be ascertained in the coming years. The DoD must be willing to continue to maintain our CIED capabilities and willing to invest in improving capabilities to ensure that the same mistakes are not repeated the next time the U.S. answers the call of the next conflict.

Appendix A

The C-IED requirement outlined in the USMC PREDEPLOYMENT TRAINING PROGRAM (PTP) COUNTER-IMPROVISED EXPLOSIVE DEVICE (C-IED) TRAINING FOR THE USCENTCOM AOR DTG 231142Z Dec 11 is applicable to active duty and reserve Marines entering the USCENTCOM AOR. Marines must receive required training outlined in this message prior to each deployment of 30 consecutive days or more to the USCENTCOM AOR.

Requirements	Resources	Audience
PTP Block 1B training for all Marines in IED awareness	Unit S-2/G-2	Each Marine will receive a 1 hour theater IED awareness brief from the unit S-2/G-2 during PTP Block 1B, regardless of rank, MOS, unit or mission.
PTP Block 1B training for selected Marines in Attack the Network individual skills	<ul style="list-style-type: none"> C2TECOE MISTC provides BAT/associated hand-held biometric systems operation/maintenance. MCIS provides instruction in TQ, TD, and CLIC training. 	<ul style="list-style-type: none"> COIC tools application for S-2/G-2 and S-3/G-3 Marines of CE/GCE/ACE/LCE units at battalion/squadron level and above (24 hours). BAT course for BAT operators and maintainers in units equipped with BAT and associated hand held biometric systems (24 hours). TQ (12 hours), TD (120 hours), and CLIC training for selected Marines at battalion level and below (80 hours).
PTP Block 1B training for selected Marines in Defeat the Device individual skills	<ul style="list-style-type: none"> MCES provides instruction in Defeat the Device individual skills training. MCSC program manager, IED Detector Dog (PM IDD) provides training for IDD handlers and kennel supervisors. 	<ul style="list-style-type: none"> Individual Preparedness in an IED Environment Course for lance corporals and below (10.5 hours) Small Unit Leader Considerations for Movement in an IED Environment Course for leaders/planners at company level and below (16 hours). Counter Radio Controlled IED Electronic Warfare (CREW) Systems Operators Course for Marines selected to operate CREW systems (13 hours). CREW Systems Trainers/Leaders Course for leaders/planners at company level and below in units equipped with CREW systems (16 hours). CREW Officer Course for Marines assigned to manage CREW assets and conduct Electronic Warfare (EW) integration at battalion/squadron level and above (35 hours). Metal Detector Operators Course for NCO and below (8 hours per detector) and Metal Detector Leaders Course for NCO and above for Marines assigned to operate and/or lead/supervise metal detector operations (8 hours). Operate a Robot in an IED Environment Course for robot operators in units equipped with robots (3 hours). Homemade Explosives (HME) awareness course for Marines at company level and below in units conducting ground operations (4 hours). IDD training for unit-designated IDD handlers and kennel supervisors (5 weeks). IDD Leaders Awareness Course for unit leaders at battalion and company levels in units equipped with IDDS (2 hours).
PTP Blocks 2 and 3 training for selected units in	TATT supports Attack the Network training for units at company through regimental	<ul style="list-style-type: none"> COIC Tools Application Senior Leader's Course for CE/ACE/LCE commanders and principal staff members at battalion/squadron level and above (2 hours). Attack the Network Course, which includes the COIC Tools Application Senior Leader's
Attack the Network collective capabilities	<p>level TATT provides training support to:</p> <ul style="list-style-type: none"> Marine Corps Tactics and Operations Group (MCTOG) training for GCE units. Marine Corps Logistics Operations Group (MCLOG) training for LCE units. Marine Aviation Weapons and Tactics Squadron-1 (MAWTS-1) training for ACE units. MAGTF Staff Training Program (MSTP) training for CE units. 	<p>Course, for GCE maneuver unit commanders and staffs at the regiment, battalion and company levels (40 hours).</p> <ul style="list-style-type: none"> Attack the Network Course for CE/ACE/LCE commanders and staffs at battalion/squadron level and above (9-20 hours). TSE capability training for one squad equivalent number of Marines per deploying GCE maneuver battalion (40 hours).
PTP Blocks 2 and 3 training for selected units in Defeat the Device collective capabilities	MCES provides instruction in Defeat the Device collective capabilities training.	Route Clearance Operations in an Explosive Hazard Environment Course for units equipped for and assigned route clearance missions (40 hours).

*Joint Improvised Explosive Device Defeat Organization (JIEDDO) Enterprise Training Enablers, including COIC Training Integration Division (TID) and the Joint Center of Excellence (JCOE) Marine detachment, provide instruction support to TECOM in Attack the Network and Defeat the Device individual skills and collective capabilities training. JCOE provides instruction in Tactical Site Exploitation (TSE) capability and Weapons Technical Intelligence (WTI) training.

Table 1. Pre-Deployment Training Program⁵⁸

Appendix B



UNCLASSIFIED/FOUO
UNITED STATES CENTRAL COMMAND
7115 SOUTH BOUNDARY BOULEVARD
MACDILL, AIR FORCE BASE, FLORIDA 33621-5101

08 July 2008

TO: ALL COMMANDERS OF UNITS DEPLOYING INTO THE US CENTRAL COMMAND (USCENTCOM) AREA OF RESPONSIBILITY (AOR) IN SUPPORT OF OPERATIONS IRAQI AND ENDURING FREEDOM

SUBJECT: Counter-Improvised Explosive Device (C-IED) Training and Capabilities Guidance

1. (U) Purpose: To outline and publish the C-IED training and capabilities requirements established by the Commander, USCENTCOM for all forces tasked to operate in an IED environment and set to deploy in support of Operations IRAQI and ENDURING FREEDOM.
2. (U) General. Despite the efforts of many within and beyond the USCENTCOM AOR, IED attacks have continued to increase in capability and sophistication. These attacks continue to have significant strategic, operational, and tactical effects on our overall mission accomplishment. If these attacks are not mitigated, they will continue to endanger successful accomplishment of the USCENTCOM mission. Therefore, due to the enemy's continuous use of IEDs, we must establish a focused training effort and specialized capabilities in order for units to effectively operate and maneuver in the USCENTCOM AOR.
3. (U) Mission-Focused Training. Commanders and other Coalition forces leadership remain responsible for using mission orders, lessons learned from current operations, previous combat experience of subordinates, and overall professional judgment to plan and execute required training prior to deployment in this theater. Coalition forces' commanders must evaluate their unit's current training status and readiness, assess their unit's capabilities against the perceived tactical and threat conditions, and plan and execute a relevant unit pre-deployment training plan. Commanders should leverage and take advantage of the multiple assets available through the Joint IED Defeat Organization (JIEDDO), Service C-IED efforts, Joint Forces Command (JFCOM), and on-line Iraq and Afghanistan theater-developed websites.
4. (U) Reception, Staging, and Onward Movement and Integration (RSOI). Units deploying to Iraq have an opportunity to hone their C-IED skills through IED opportunity training lanes facilitated by US Army Central Command, Kuwait. Additionally, units entering Iraq theater of Operations will receive the Iraq IED Awareness brief upon arrival and can be afforded follow-on training facilitated by CJTF TROY at any major Forward Operating Base. Available training includes; Intermediate and High Risk Search Courses that enable soldiers to conduct search of specified targets in areas with high IED risk. Units entering the Afghanistan theater will receive the Afghanistan IED Awareness brief upon arrival in Afghanistan and will have a chance to hone their C-IED skills through IED opportunity training lanes facilitated by Task Force Paladin in Bagram, Camp Phoenix and Salerno. Commanders are highly encouraged to use and maximize this training opportunity and place emphasis on the training for those units who do not have previous C-IED collective skills training.

UNCLASSIFIED/FOUO

Figure 6. Counter-Improvised Explosive Device Training and Capabilities Guidance

Endnotes

¹ JIEEDO, Counter-IED Strategic Plan 2012–2016, 13.

² Scott L. Seggerman (Team Leader, Personnel and Manpower Branch, DAP Division, DMDC), email document to author January 24, 2013.

³ U.S. Department of Defense, *Joint Improvised Explosive Device Defeat (JIEDD) Task Force*, Directive 2000.19, June 27, 2005, 2.

⁴ Michael Hoffman, “JIEDDO beyond Afghanistan”, *DoD Buzz.com*, October 18, 2012, <http://www.dodbuzz.com/2012/10/18/jieddos-survival-beyond-afghanistan/>

⁵ DOD Casualty Statistics cited in Tom Vanden Brook “IED casualties dropped 50% in Afghanistan in 2012”, *U.S.A TODAY.com*, January 18, 2013, [http://www.usatoday.com/story/news/world/2013/01/18/ied-casualties-down-afghanistan-2012/1839609/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+usatoday-NewsTopStories+\(News++Top+Stories\)](http://www.usatoday.com/story/news/world/2013/01/18/ied-casualties-down-afghanistan-2012/1839609/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+usatoday-NewsTopStories+(News++Top+Stories))

⁶ Daniel A. Donohue (EOD Solutions (ACES) Liaison to C-IED Division MCWL), email “Pacific Irregular Warfare Update, December 2012” document to author January 17, 2013.

⁷ Scott L. Seggerman (Team Leader, Personnel and Manpower Branch, DAP Division, DMDC), email document to author January 24, 2013.

⁸ LTG James J. Lovelace, U.S.A, and BG Joseph L. Votel, U.S.A. “The Asymmetric Warfare Group: Closing the Capability Gaps”, *Army Magazine*, March 2004.

http://www.army.mil/professionalWriting/volumes/volume3/april_2005/4_05_4.html

⁹ LTC Richard F. Ellis, U.S.A, Maj Richard D. Rogers, U.S.AF, LCDR Bryan M. Cochran, U.S.N, “Joint Improvised Explosive Device Defeat Organization (JIEDDO): Tactical Successes Mired in Organizational Chaos; Roadblock in the Counter-IED Fight”, (report, Joint Forces Staff College, Joint and Combined Warfighting School, 2007), 3.

¹⁰ Ellis, Rogers, Cochran, 3.

¹¹ U.S. Department of Defense, *Joint Improvised Explosive Device Defeat (JIEDD) Task Force*, Directive 2000.19, 27 June 2005, 1.

¹² U.S. Department of Defense, *Joint Improvised Explosive Device Defeat Organization (JIEDDO)*, Directive 2000.19E, 14 February 2006, 1.

¹³ U.S. Department of Defense, JIEEDO, Counter-IED Strategic Plan 2012–2016, 1

¹⁴ Gordon Lubold, “Whither JIEDDO?”, *Foreignpolicy.com*, September 25, 2012, http://www.foreignpolicy.com/articles/2012/09/25/whither_jieddo

¹⁵ TECOM Mission, <http://www.tecom.marines.mil/> accessed December 29, 2012.

¹⁶ JIEEDO, Counter-IED Strategic Plan 2012–2016, 8.

¹⁷ Bryan Bender, ”Panel on Iraq bombings grows to \$3b effort Critics say it has been ineffective”, *The Boston Globe*, June 25, 2006.

¹⁸ Lieutenant General Michael D. Barbero, Director Joint Improvised Explosive Device Defeat Organization, United States Department of Defense, Oral statement before the United States House of Representatives Committee on Appropriations Subcommittee on Defense, September 20, 2012, 3.

¹⁹ JIEEDO, Counter-IED Strategic Plan 2012–2016, 9.

²⁰ USMC Pre-deployment Training Program (PTP), Counter-Improvised Explosive Device (C-IED) Training, For the U.S.CENTCOM AOR, 23 Dec 2011.

²¹ Commandant of the Marine Corps, *The Pre-Deployment Toolkit*, MARADMIN Message 740/07, December 19, 2007, <http://www.marines.mil/News/Messages/MessagesDisplay/tabid/13286/Article/116869/the-pre-deployment-toolkit.aspx>

²² A.J. Bosker, “JIEDDO Focusing On Current Fight, Preparing For Future Threats”, *JIEDDO News Service WASHINGTON*, December 5, 2012, 1.

²³ U.S. Central Command Headquarters, Counter-Improvised Explosive Device (C-IED) Training and Capabilities Guidance, to all commanders of units deploying into U.S. Central Command AOR in support of OIF and OEF, Memorandum, July 8, 2008.

²⁴ Marcus Weisgerber, “Panetta Warns Soldiers Over Sequestration”, *Defensenews.com*, January 17, 2013, <http://www.defensenews.com/article/20130117/DEFREG02/301170016/Panetta-Warns-Soldiers-Over-Sequestration?odyssey=nav%7Chead>

²⁵ Lubold

²⁶ Lubold

²⁷ U.S. Department of Defense, Defense Budget Priorities, January 2012, 2.

²⁸ U.S. Department of Defense, Defense Budget Priorities, January 2012, 1.

²⁹ U.S. Department of Defense, FY 2013 Budget Request Overview Book, Office Of The Under Secretary Of Defense (Comptroller) / Chief Financial Officer, February 2012, 1-2.

³⁰ Lubold

³¹ DoD, FY 2013 Budget Request Overview Book, 6-5.

³² DoD, FY 2013 Budget Request Overview Book, 6-6.

³³ Lieutenant Colonel Edward Giardino (CIED Div, MCWL), in discussion with the author, January 2013.

³⁴ Major Rich Maidens (CIED Section, TECOM), in discussion with the author, January 2013.

³⁵ Major Rich Maidens (CIED Section, TECOM), in discussion with the author, January 2013.

³⁶ Major Rich Maidens (CIED Section, TECOM), in discussion with the author, January 2013.

³⁷ Joint Chiefs of Staff, Capabilities-Based Assessment (CBA) User's Guide Ver. 2, December 2006, 7.

³⁸ Charter for the United States Marine Corps CIED Capability Based Assessment

³⁹ Lubold

⁴⁰ Hoffman

⁴¹ U.S. Army Counter-Improvised Explosive Device Strategy, January 2012, 1.

⁴² Bosker, "JIEDDO Focusing On Current Fight, Preparing For Future Threats", 3.

⁴³ JIEEDO, Counter-IED Strategic Plan 2012–2016, 2.

⁴⁴ Bosker, "JIEDDO Focusing On Current Fight, Preparing For Future Threats", 2.

⁴⁵ JIEEDO, Counter-IED Strategic Plan 2012–2016, 2.

⁴⁶ U.S. Department of Defense, "Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense", January 2012, 10-12.

⁴⁷ Joint Improvised Explosive Device Defeat Fund, 3.

⁴⁸ JIEEDO, Counter-IED Strategic Plan 2012–2016, 2.

⁴⁹ Fiscal Year (FY) 2013Budget Estimates, Joint Improvised Explosive Device Defeat Fund, February 2012, 3.

⁵⁰ JIEEDO, Counter-IED Strategic Plan 2012–2016, 2.

⁵¹ Joint Improvised Explosive Device Defeat Fund, 5.

⁵² Headquarters U.S. Marine Corps, *Marine Corps Vision and Strategy 2025* (Washington, DC: Headquarters U.S. Marine Corps, June 18, 2007), 13-27.

⁵³ Marine Corps Warfighting Lab, CIED Division Homepage accessed, 12 December 2012, <http://www.mcwl.marines.mil/Divisions/CIED.aspx>

⁵⁴ Marine Corps Warfighting Lab, CIED Division Homepage accessed, 12 December 2012, <http://www.mcwl.marines.mil/Divisions/CIED.aspx>

⁵⁵ Ellis, Rogers, Cochran, 4.

⁵⁶ Staci George, "JIEDDO Director Discusses Mission, Counter-IED Tactics, Future Beyond 2014", *JIEDDO News Service Washington*, October 17, 2012, 3.

⁵⁷ Barbero, Oral Statement, 3.

⁵⁸ Major Richard Maidens (TECOM, CIED Section), Pre-Deployment Training Program Document provided to author, January 16, 2013.

Bibliography

Barbero, Lieutenant General Michael D., U.S. Army, Director Joint IED Defeat Organization. “C-IED Beyond 2014: The Enduring Global IED Threat Requires Enduring Capabilities”. As delivered at Permanent Session, NATO Military Committee. December 12, 2011, 3.

Barbero, Lieutenant General Michael D. Director Joint Improvised Explosive Device Defeat Organization, United States Department of Defense. Oral statement before the United States House of Representatives Committee on Appropriations Subcommittee on Defense. September 20, 2012, 3.

Bender, Bryan. ”Panel on Iraq bombings grows to \$3b effort Critics say it has been ineffective.” The Boston Globe, June 25, 2006.

Bonsignore, Ezio;Eshel, David;Garland, Richard. “Countering the IED Threat.” *Military Technology*; June, 2006, 108-121.

Bosker, A.J.. “IEDs Will Remain ‘Weapon Of Choice’ For Decades”. *JIEDDO News Service WASHINGTON*. September 20, 2012, 1.

Bosker, A.J.. “JIEDDO Focusing On Current Fight, Preparing For Future Threats”. *JIEDDO News Service WASHINGTON*, December 5, 2012, 1.

Canty, Jeremiah D. “Two Schools of Thought: The Future of Countering the IED.” *Marine Corps Gazette*, February, 2012, 43-46.

Cary, Peter and Youssef, Nancy. “JIEDDO: The Manhattan Project that bombed”. *The Center for Public Integrity*. March 27, 2011, Updated: August 10, 2011.
<http://www.publicintegrity.org/2011/03/27/3799/jieddo-manhattan-project-bombed>

Commandant of the Marine Corps, *The Pre-Deployment Toolkit*, MARADMIN Message 740/07, December 19, 2007,
<http://www.marines.mil/News/Messages/MessagesDisplay/tabid/13286/Article/116869/the-pre-deployment-toolkit.aspx>

Ellis, LTC Richard F., USA , Rogers, Maj Richard D., USAF, Cochran, LCDR Bryan M., USN. “Joint Improvised Explosive Device Defeat Organization (JIEDDO):Tactical Successes Mired in Organizational Chaos; Roadblock in the Counter-IED Fight”. Report, Joint Forces Staff College, Joint and Combined Warfighting School, 2007.

Fiscal Year (FY) 2013 Budget Estimates. Joint Improvised Explosive Device Defeat Fund. February 2012.

George, Staci. "JIEDDO Director Discusses Mission, Counter-IED Tactics, Future Beyond 2014". *JIEDDO News Service Washington*. October 17, 2012, 3.

Headquarters U.S. Marine Corps. *Combined Arms Improvised Explosive Device Defeat Operations*. MCIP 3-17.01. Washington DC: Headquarters U.S. Marine Corps. September 21, 2007.

Headquarters U.S. Marine Corps. *MAGTF Counter-Improvised Explosive Device Operations*. MCIP 3-17.02. Washington DC: Headquarters U.S. Marine Corps. January 24, 2011.

Headquarters U.S. Marine Corps. *Marine Corps Campaign Plan for 2012-2020*. Washington DC: Headquarters U.S. Marine Corps. April 24, 2012.

Headquarters U.S. Marine Corps. *Marine Corps Vision and Strategy 2025*. Washington DC: Headquarters U.S. Marine Corps. June 18, 2007.

Headquarters U.S. Marine Corps. *Marine Corps Operating Concepts, Third Edition*. Washington DC: Headquarters U.S. Marine Corps. June 2010.

Headquarters U.S. Marine Corps. *Operations Change 1, FM 3-0*. Washington, DC: Headquarters U.S. Marine Corps. February 27, 2008, Foreward.

Hoffman, Michael, "JIEDDO beyond Afghanistan", *DoD Buzz.com*, October 18, 2012, <http://www.dodbuzz.com/2012/10/18/jieddos-survival-beyond-afghanistan/>

Joint Chiefs of Staff. Capabilities-Based Assessment (CBA) User's Guide Ver. 2. December 2006.

Joint Improvised Explosive Device Defeat Organization (JIEDDO), *Counter-Improvised Explosive Device: Strategic Plan 2012-2016*. Washington, DC: JIEDDO, 2012.

Litaker, Col Eric. "Efforts to Counter the CIED Threat" *Marine Corps Gazette*, January 2005, 29-31.

Lovelace, LTG James J. and Votel, BG Joseph L.. "The Asymmetric Warfare Group: Closing the Capability Gaps". *Army Magazine*. March 2004.
http://www.army.mil/professionalWriting/volumes/volume3/april_2005/4_05_4.html

Lubold, Gordon. "Whither JIEDDO?". *Foreignpolicy.com*, September 25, 2012.
http://www.foreignpolicy.com/articles/2012/09/25/whither_jieddo

Marine Corps Tactics and Operations Group (MCTOG), *Attack the Network (AtN) Battle Staff Course 3-12*. Course ID M09KH15, October 3, 2011.

Miller, Jeffrey W. "CIED: An Affordable Future Capability." *Marine Corps Gazette*, February, 2012, 47-51.

U.S. Army. Counter-Improvised Explosive Device Strategy. January 2012, 1.

U.S. Central Command Headquarters, Counter-Improvised Explosive Device (C-IED) Training and Capabilities Guidance, to all commanders of units deploying into US Central Command AOR in support of OIF and OEF. Memorandum, July 8, 2008.

U.S. Congress. House. Defeating the Improvised Explosive Device (IED) and Other Asymmetric Threats: Today's Efforts and Tomorrow's Requirements: Hearing before the House Armed Services Subcommittee, 111th Cong., 2008.

U.S. Congress. House. Subcommittee on Oversight and Investigations. Report to the Subcommittee on The Joint Improvised Explosive Device Defeat Organization: DOD's Fight Against IEDs Today and Tomorrow. 110th Cong., 2008. Committee Print 110-11.

U.S. Department of Defense. Casualty Statistics. Cited in Tom Vanden Brook "IED casualties dropped 50% in Afghanistan in 2012", *USA TODAY.com*, January 18, 2013.
[http://www.usatoday.com/story/news/world/2013/01/18/ied-casualties-down-afghanistan-2012/1839609/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+usatoday-NewsTopStories+\(News+-+Top+Stories\)](http://www.usatoday.com/story/news/world/2013/01/18/ied-casualties-down-afghanistan-2012/1839609/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+usatoday-NewsTopStories+(News+-+Top+Stories))

U.S. Department of Defense. Defense Budget Priorities. January 2012, 1.

U.S. Department of Defense. FY 2013 Budget Request Overview Book. Office Of The Under Secretary Of Defense (Comptroller) / Chief Financial Officer. February 2012, 1-2.

U.S. Department of Defense. *Joint Improvised Explosive Device Defeat (JIEDD) Task Force*. Directive 2000.19, 27 June 2005.

U.S. Department of Defense. *Joint Improvised Explosive Device Defeat Organization (JIEDDO)*. Directive 2000.19E, February 14, 2006.

U.S. Department of Defense. JIEEDO, Counter-IED Strategic Plan 2012–2016. 2.

U.S. Department of Defense. "Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense". January 2012, 10-12.

U.S. Government Accountability Office. *Warfighter Support: Actions Needed to Improve Visibility and Coordination of DOD's Counter-Improvised Explosive Device Efforts*. Washington DC: Government Accountability Office, October 2009.

U.S. Government Accountability Office. *Warfighter Support: Actions Needed to Improve the Joint Improvised Explosive Device Defeat Organization's System of Internal Control*. Washington DC: Government Accountability Office, July 2010.

U.S. Marine Corps CIED Charter. Capability Based Assessment

U.S. National Intelligence Council. "Tomorrow's Security Challenges: The Defense Implications of Emerging Global Trends." *Strategic Insight* 10, Special Issue (October 2011): 138-149.

U.S. Marine Corps. Training and Education Command (TECOM). *Counter-Improvised Explosive Device (C-IED) Enduring Training Plan Post-Operation Enduring Freedom (OEF) (Draft Version 2.0)*. Washington DC: Headquarters U.S. Marine Corps. March 9, 2012.

U.S. Marine Corps. Training and Education Command (TECOM). *Counter-Improvised Explosive Device (C-IED) Enduring Training Plan Post-Operation Enduring Freedom (OEF) (Draft Version 3.2)*. Washington DC: Headquarters U.S. Marine Corps. May 2, 2012.

U.S. Marine Corps. Training and Education Command (TECOM)." TECOM G3/5/7 C-IED Section Training Plan Brief". PowerPoint presentation, Marine Corps Marine Corps. Training and Education Command, Quantico, VA, November 9, 2012.

Weisgerber, Marcus. "Panetta Warns Soldiers Over Sequestration". *Defensenews.com*. January 17, 2013.
<http://www.defensenews.com/article/20130117/DEFREG02/301170016/Panetta-Warns-Soldiers-Over-Sequestration?odyssey=nav%7Chead>